

PROTOCOLS FOR NON-HUMAN PRIMATE

PROCEDURES FOR HANDLING NONHUMAN PRIMATES DURING TRANSIT

PRIMATE SHIPPING CONTAINERS

During shipment the primates will be housed in a container large enough to allow them to stand according to current IATA regulations. The container will have proper ventilation, free of sharp projections that could cause exposure incidents, have slide handles, a shelf to sit on, a removable litter pan, a sling door, and a separate for water and food that can be filled from the outside. Wood containers will be placed inside plastic "vari-kennels" (air kennels). According to U.S. government agencies shipping containers should be labeled with the following: handle with care, this side up, quarantine animal in transit, common name and scientific name of the primate, ID number or primate's house name, sex of the primate, and a copy of import, export permit, and health certificate. If the primates are not double crated then the following additional rules will apply. 10 mil plastic will be attached 1/3 of the way up the sides to prevent leakage of urine and other contaminated materials from spilling out of the container, and will be attached so that the primate can not tear the plastic..

NONHUMAN PRIMATE SHIPPING CONTAINERS IN CARGO HOLD

There should not be any food, human infant items, or other animals in the same cargo compartment as the primates during shipment. If the nonhuman primate shipping containers are placed inside a vari kennel then no other cargo can be within 0.30 meters from the top, sides or bottom of vari kennel. If the containers will be placed on a sheet of thick plastic between the shipping container and the aluminum pallet. A minimum of 0.75 meters spacing of other cargo is needed from primate containers and palates, or the use of a physical barrier to allow adequate ventilation to prevent contamination.

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HANDLING OF NONHUMAN PRIMATE SHIPPING CONTAINERS TO AND FROM THE PLANE

All personnel handling the primate containers must be wearing a disposable gown, ecam gloves, elbow length leather gloves, dust mist respirator, and rubber boots. The examination of the primate containers is restricted to essential personnel only. Anyone who will be standing within 2 meters of the container must at least wear a dust mist respirator. If the nonhuman primate shipping containers are placed inside a vari kennel then disposable gowns will not be necessary to be worn by personnel handling the Nonhuman shipping containers that are inside the vari kennels.

DISINFECTION OF THE CARGO AREAS WHERE NONHUMAN PRIMATE SHIPPING CONTAINERS WERE PLACED

The belly of the plane, loading ramps, moving vehicles, and other areas the primate containers were placed must be pump sprayed with disinfecting quaternary ammonia, such as T.B.Q. (which will not affect the metals on the plane if use the manufactured directions).

CORRESPONDENCE WITH ALL INSTITUTIONS INVOLVED IN HANDLING THE NONHUMAN PRIMATE SHIPPING CONTAINERS

All airlines and zoo personnel that will be involved in the handling of the primate containers will be FAXed these shipping instructions. Those individuals will intern need to contact the International Center for Gibbon Studies by FAX or letter to verify the shipping precautions are understood before the shipment has taken place.

PROCEDURES USED TO TRANSPORT PRIMATES TO FACILITY, PROTECTIVE CLOTHING, AND ESCAPE NONHUMAN PRIMATES

VEHICLE

1.a. ICGS provides two mechanically sound vehicles for the transport of nonhuman primates, or L.A. Animal Transport, (213) 578-5273. One is for transport to the facility and the other is for transport vehicle, but L.A. Animal Transport will be used if there is an emergency. The following description is accurate for both vehicles.

1.b. Primates are picked up at the airport and transported in their original shipping containers, which are set on plastic in a closed vehicle that is equipped with heating and air conditioning. These two vehicles contain the primates and restrict the entry of other animals and unauthorized persons. The driver must have the ability to view the interior of the cargo space to insure that all primates are secure in their primary enclosure. The interior of the animal cargo space must be disinfected before and after each shipment of non-human primates have been transported within.

INSPECTION OF PRIMATES

2. Before inspection of primates at the airport the driver will place over nose and mouth a 3m8710 disposable respirator.

HANDLING OF PRIMATE SHIPPING CONTAINER

3. Elbow length leather gloves must be worn before handling of shipping crate. After the driver has placed the shipping container in the vehicle and locked the rear compartment they will first remove their gloves and place them in a plastic bag in the cab, then remove their 3M 8710 respirator and place it in a separate plastic bag.

PRIMATE ESCAPES

4. If primates are loose in the vehicle, a tranquilizing gun will be used by personnel familiar with it's proper usage. The quarantine room has a primate hoop net that stays inside the room gun is stored in the dressing room.

TRANSFERRING NONHUMAN PRIMATES INTO QUARANTINE, DISCARDING SHIPPING CONTAINER AND OTHER MATERIALS, OR PRIMATES THAT MAY DIE

Entering quarantine with primate shipping containers

1. Once at the facility, the vehicle is backed up to the door of the quarantine room. The driver will first apply the respirator and take both plastic bags that include their leather gloves to the back of the vehicle. First inspect the vehicle for loose primates before the rear vehicle door is opened. At this point it is essential that protective clothing be worn along with plastic foot covers to be placed over shoes. Once the door has been opened the driver will place their

leather gloves back on and carry the primate shipping containers into the quarantine room. Other disposable items are placed in a 44 gallon infectious waste container lined with a plastic infectious waste bag.

RELEASE OF PRIMATES FROM SHIPPING CONTAINER INTO SQUEEZE-BACKED ENCLOSURE

2.a All doors to quarantine room are to be closed. With leather gloves, the primate shipping containers are carried over to their squeeze-backed enclosure to be transferred.

2.b. First the squeeze-back enclosure sliding door is opened, then the primate shipping container door is opened. Once the primate is in the squeezed-back enclosure the new enclosure door is to be closed.

DISPOSAL OF PRIMATE SHIPPING CONTAINERS

3. The primate shipping containers, food and bedding are double bagged in a 44 gallon infectious waste liner in the quarantine room. For removal of double bagged containers see infectious Waste Procedures. If the shipping container is too large to be bagged, it must be placed back in the transport vehicle until the infectious waste pickup arrives. Leather gloves are placed in infectious laundry hamper (see infectious laundry procedures).

DISPOSAL PROCEDURES FOR PRIMATES WHICH MAY DIE IN TRANSPORT, DURING QUARANTINE, OR WITHIN 90 DAYS AFTER QUARANTINE.

Any nonhuman primates which die in transport or during quarantine are taken into the Los Angeles County Department of Health Veterinarian Services or to the ICGS quarantine room. Selected gross findings are placed in 10% formalin to have slides made for ceropsy diagnosis. The minimum of tissues that will be saved are as follows; liver, lung, spleen, tracheo bronchial, any granules, and additional tissue as appropriate for cause of death. Once the nonhuman primate is necropsied at ICGS, it is then double bagged in an infectious waste plastic bag, and D & D Disposal (213) 879-9073, is then contacted for a pick up and warned that they should cremate the primate separately. Any primate that may die with 90 days of being released from quarantine of T.B. or other infectious disease must be reported to CDC.

ENTERING NONHUMAN PRIMATE QUARANTINE WITH PROTECTIVE CLOTHING

This is the protection of the personnel entering quarantine to avoid cross contamination.

1. Step in the foot bath or spray your rubber boots with Staphene disinfectant before entering the anti-room. Before entering quarantine, obtain the following items from the supply closet in the anti-room; latex non-sterile disposable gloves, disposable cap, disposable General Dust Respirator 3M 8560/8710, and disposable cover gowns. The garments will be worn once the anti-room doors are closed and locked. If supply closet in office to restock anti-room closet.
2. Disposable outer garments are worn prior to entering the quarantine room.
3. If coveralls are worn in quarantine, one disposable cover gown is to be worn over coveralls. If coveralls are not to be worn into quarantine then two pairs of disposable cover gowns are to be worn.
4. Unfold the gown with opening in the back. Put hands in sleeves, pull gown on, and secure the neck. Overlap the gown in the back and tie the waist.
5. Place loops of mask over ears. The mask must cover both nose and mouth. Never touch the mask once it has been applied.
6. Place disposable head cap on. If personnel have a beard, use disposable head cover that wraps around the chin.
7. Disposable gloves are to be placed on both hands and secured over the cuff of the gown.
8.
 - a. Food is brought into the quarantine room in a disposable plastic bag with loops. Before entering quarantine place your arm through inspection window before entering quarantine room making sure that primates are secured.
 - b. Unlock and push open the quarantine room door, reach over to rubber boot rack in quarantine room over coveralls. Remove second knee-high rubber boot from rack to be placed on in the quarantine room. Remove other rubber boot in anti-room and steps over threshold into knee-high rubber boot. The self-closing door will shut behind you.
9. Remove face shield from rack and place shield carefully over head.

ACCIDENT PROCEDURES DURING QUARANTINE AND SHARPS CONTAINER

1. If a glove should tear when in quarantine, remove the glove and set in the infectious waste container. (see Procedures For Exiting Non-Human Quarantine Room and Infectious Waste Procedures). Wash hands and put on a new glove that is stored inside the towel dispenser room. (See Isolation Hand Washing Procedure). If bit or scratched by a high-risk non-human primate, scrub the infected area for 15 minutes with iodine.
2. If disposable coverall becomes soiled when in quarantine, it must be removed in the quarantine room before leaving and placed in the infectious laundry. (See Infectious Laundry Procedures).
3. If an abrasion on then skin occurs, refer to the Animal Bite, Scratch, and Needle Stick Reporting Procedure. First wash the abrasion with Betadine and water in the sink before leaving the quarantine room.
4. To ensure safety from possible used needle sticks, the entire syringe and needle should not be bent, sheared, or recapped before discarded into a Sharps container, which is stored in the quarantine room and anti-room. When the Sharps container is full a new one will be brought into the quarantine room and the full container will be covered and disposed of when quarantine is over. There will only be a single use of scalpel blades, disposable blades, and other sharp instruments.
5. Log ill illnesses, bites, or scratches. Any illness that is not resolved within 3 days should be reported to CDC.

CLEANING AND FEEDING PROCEDURES DURING QUARANTINE

1. Leave disposable food bag hanging on boot rack.
2. Inspect all non-human primates. When exiting, report on their food intake, stools, and behavior in a report log.
3. Dry material will be removed first and placed into the infectious waste container or hosed down the enclosure litter pans into the waste drain.
4. After dry food is removed, spray enclosure with T.B.Q. Let sit for 15 minutes.
5. Final cleaning is conducted with a low-pressure hose. This procedure should be conducted every other day unless appropriate sanitation cannot be maintained.

6.
 - a. The interior of the enclosures should not be cleaned during the quarantine period unless sanitation cannot be maintained.
 - b. If High-pressure washer is needed, personnel outside will be contacted to operate the machine outdoors.
 - c. Remove high-pressure hose and spray gun from wall rack and connect the hose to the quick release fitting. When spraying the room or enclosures make sure the non-human primates are not sprayed.
7. If water is needed, remove polyurethane water containers from holder and refill at sink in quarantine.
8. Wash gloves at sink then take disposable plastic food bag off rack and begin feeding all non-human primates in their food trays. After feeding, place disposable plastic food bag on top of infectious waste container. (See infectious Waste Procedures).
9. Open plastic monkey chows container that is lined with plastic and a lid and give all nonhuman primates the proper amount of monkey chow.
10. Second feeding at 3:00 PM is similar to first except no monkey chow is fed.

PROCEDURES FOR EXITING NON-HUMAN QUARANTINE ROOM

The outer protective clothing is removed and placed in plastic infectious waste bags and disposed of as infectious waste. (*See infectious waste procedures*)

1. Before exiting, boots will be scrubbed in foot bath.
2. Wash gloves at sink area. (*See hand washing procedures*)
3. Remove face shield and place on rack,
4. Open infectious waste container.
5. Remove protective hair covering and place in infectious waste container.
6. Remove disposable covers gown/s and place in infectious waste container.
7. Unfasten the neck
8. Remove gown by grasping one sleeve from the outside with the hand, pulling the cuff over the hand and repeat on the other hand.
9. Pull gown down and away from body and roll the gown up so that the contaminated part is inside, then discard in the infectious waste container.

10. Dirty coveralls are placed in the infectious laundry hamper.
(See *infectious laundry procedures*).
11. Remove mask and discard in the infectious waste container.
12. Open door and lean against door to keep it ajar.
13. Remove one glove making sure the outside of the glove does not touch the skin and that the contaminated part is in the inside.
14. Place one glove in the infectious waste container and close the lid.
15. Knee high boots are placed upside down on wall pegs. First remove one knee high boot with gloved and place on wall pegs.
16. Step over the threshold with one foot and place that same foot into the first rubber boot in the anti-room.
17. Remove the second knee high boot with gloved hand and place on the wall pegs.
18. Completely step out of the quarantine room and your first step should be into the second rubber boot.
19. Remove second glove and place it on top of the lid (to be set into the container the next time the infectious waste container is opened).
20. Once you are completely in the anti, then wash your hands with disinfectant foam.

INFECTIOUS WASTE PROCEDURES

Bedding, uneaten food, feces, protective equipment, primate shipping containers (if small enough), and other hazardous material are placed in a 44 gallon infectious waste container (in a manner as to avoid dust generation, splashing, spraying or aerosolization) with a tightly sealed lid and lined with a plastic infectious waste bag. The double bagged plastic infectious waste bag is removed from the quarantine room once a week (depending on the amount of nonhuman primates in quarantine) and removed off the property by BFI Medical Waste Systems (800) 366-4234.

1. When in the quarantine room, the plastic infectious waste bag is tied and removed from its container.
2. The door to the anti-room is opened by another gowned staff member who is holding a second plastic infectious waste bag.
3. As soon as the plastic infectious waste bag is placed inside the second

bag the quarantine room door is shut. At that time the double bagged infectious waste is tied and carried over to the BFI Medical Waste Systems truck.

INFECTIOUS LAUNDRY PROCEDURES

If the coverall becomes soiled when in quarantine, it must be removed in the quarantine room before leaving and placed in the infectious laundry.

1. Set the sink drain in the laundry sink so that it will hold waste.
2. Fill the laundry sink with hot water and fill it high enough for the soiled items.
3. Place 1 oz. of T.B.Q. per each gallon of hot water.
4. Remove the soiled coveralls and leather gloves from the infectious laundry hamper and place them into the laundry sink to soak for 15 minutes.
5. Ring out the coveralls and place them into a new plastic infectious waste bag and tie it.
6. Place this plastic infectious waste bag into a second plastic infectious waste bag and tie it.
7. The anti-room door will then be opened by a second gowned person who is holding a third plastic infectious waste bag.
8. The doubled plastic infectious waste bags are placed inside and the quarantine room door is shut.
9. The bag is tied and carried over to the laundry room.
10. The person who is not carrying the red bagged soiled cloths will set the washing machine on a hot cycle with T.B.Q. The bags are untied by other person, and the coveralls and gloves are then placed inside the washing machine without touching the inside of the bags.
11. The bags are retied and set in the anti-room infectious waste container along with the gown, which was worn by the second staff member and is lined with a plastic infectious waste bag.
12. When the laundry cycle is finished, the items are removed and hung up to dry in the sun.

REMOVAL OF NONHUMAN PRIMATE AND SQUEEZE-BACK ENCLOSURES AFTER QUARANTINE PERIOD IS COMPLETED.

Enclosures stay inside the quarantine room during the complete quarantine period.

1. Apply disposable latex gloves.
2. Primates are squeezed up and tranquilized.
3. When the primate is fully tranquilized, it is removed and placed into a new shipping container and then placed into a vehicle to be delivered. (See Procedures Used To Transport Primates To Facility).
4. With closed doors, the squeeze-back enclosures are first sprayed with a T.B.Q. solution to soak for 15 minutes.
5. The squeeze-back enclosures are steam cleaned.
6. As they are leaving the quarantine room they are resprayed with T.B.Q.

ISOLATION HAND WASHING PROCEDURES

Proper hand washing techniques are essential for the protection of personnel and non-human primates. Hand washing reduces contamination from contact with soiled items and prevents the spread of pathogens. It is the single most important means of preventing the spread of infection.

The principle of good hand washing technique is that of mechanical removal of dirt and microorganisms. Use I.C.G.S. approved germicidal soap.

1. Turn on faucet by adjusting the water your forearms.
2. Stand well away from the sink so that your garments do not touch the sink.
3. Rinse hands well under running water with germicidal soap. Hold hands downwards while rinsing.
4. Turn off faucet with paper towel or forearm.
5. Dry hands paper towels and discard in waste container.

ANIMAL BITE, SCRATCH, AND NEEDLE STICK REPORTING PROCEDURES

1. Each staff member or volunteer is responsible for reporting all injuries received by an animal or needle immediately to the director. The

injury is cleansed right away with Betadine surgical scrub and hydrogen peroxide. After the wound has been cleaned it is wrapped in a protective cloth to prevent further injury or possibility of infection. If the injury is serious, immediate transport is provide to the emergency center of the Henry Mayo Newhall Memorial Hospital, 23845 W. Mc Bean Parkway, Valencia, (805) 253-8000. Further monitoring of the non-human primates in quarantine will be necessary to insure the health of the person involved. A booster tetanus will be administered to each staff member or volunteer if necessary.

2. Log all serious febrile illnesses (*i.e.*, fever exceeding 101.3° F (38.5° C), bites, or scratches. Any serious febrile illness in a worker with potential exposures that is not resolved within 3 days should be reported to CDC. Provide CDC with a copy medical reports and a complete evaluation of the infected worker within 15 days of illness.
3. Maintain an accurate record for each worker with potential exposures, and include the following:
 - ◆ Name and social security number of the worker.
 - ◆ Copy of all results of exams and medical testing.
4. Maintain these records for at least 5 years
5. All records will be made available for review.

PEST CONTROL PROGRAM

If a problem with ants arises, a box is constructed with a very small opening. Sugar is placed inside for the ants to eat and to take back to their nest. Once this occurs, boric acid in graduating amounts is mixed with the sugar until the colony is completely killed off. Traps for mice and ground squirrels have been set throughout the grounds and are checked twice daily. If any such vermin have been caught they are double bagged and placed in a rubbish dumpster outside the facility the same day. There never has been, and currently is not a problem with any pests within the quarantine.

STAFF MEMBER OCCUPATIONAL HEALTH PROGRAM

Prior to active employment, serum samples are received by individuals who will be interacting with the non-human primates in quarantine and stored at -70° F for a ten-year period and repeated once a year for possible future diagnostics.

Immunization for tetanus is given every five to seven years, vaccination against the measles if they have not had it in the pas, tuberculosis test are taken yearly and stools are taken in for diagnostic evaluation twice yearly, along with a blood panel and vaccination for Hepatitis B. staff members are instructed on the importance of health, sanitation and safety measure while working at the facility and quarantine every 3 months. All necessary outer protective clothing is worn during interaction with the nonhuman primates such as disposable outer garments, latex exam gloves, hats, 3M 8710 dust mist masks, disposable face shield and rubber boots.